

IN THE CLAIMS:

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1. (Original) A method of managing copies of virtual volume data, comprising:
receiving an access request directed to an original virtual volume;
mapping the access request to a secondary virtual volume; and
performing the access request on one or more physical volumes associated with
the secondary virtual volume.
 2. (Original) The method of claim 1, wherein the original virtual volume is
associated with one or more original physical volumes, and wherein the one or more
original physical volumes are different from the one or more physical volumes.
 3. (Original) The method of claim 1, wherein the original virtual volume is
associated with one or more original physical volumes, and wherein the one or more
original physical volumes are the same as the one or more physical volumes.
 4. (Original) The method of claim 2, wherein the one or more original physical
volumes are on a first type of data storage media, and wherein the one or more physical
volumes are on a second type of data storage media.
 5. (Original) The method of claim 4, wherein the first type of data storage media
and the second type of data storage media is one of magnetic tape media, magnetic disk
media, optical media, floppy diskettes, CD-ROM media, DVD-ROM media, random
access memory (RAM), and memory card media.
 6. (Original) The method of claim 1, wherein mapping the access request to a
secondary virtual volume includes redirecting the access request from a first secondary
virtual volume to a second secondary virtual volume.

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7. (Original) The method of claim 6, wherein the access request is redirected in response to a fault in a physical volume of the first secondary virtual volume.
 8. (Original) The method of claim 6, wherein the access request is redirected in response to a command to redirect the access request to the second secondary virtual volume.
 9. (Original) The method of claim 6, wherein the first secondary virtual volume includes physical volumes on a first media type and the second secondary virtual volume includes physical volumes on a second media type.
 10. (Original) The method of claim 9, wherein performing the access request on one or more physical volumes associated with the secondary virtual volume includes converting the access request to a format suitable for the second media type.
 11. (Original) The method of claim 1, wherein the access request is received using a first communication protocol and wherein performing the access request on one or more physical volumes associated with the secondary virtual volume includes converting the access request from the first communication protocol to a second communication protocol.
 12. (Original) An apparatus for managing copies of virtual volume data, comprising:
 - means for receiving an access request directed to an original virtual volume;
 - means for mapping the access request to a secondary virtual volume; and
 - means for performing the access request on one or more physical volumes associated with the secondary virtual volume.
 13. (Original) The apparatus of claim 12, wherein the original virtual volume is associated with one or more original physical volumes, and wherein the one or more original physical volumes are different from the one or more physical volumes.

14. (Original) The apparatus of claim 12, wherein the original virtual volume is associated with one or more original physical volumes, and wherein the one or more original physical volumes are the same as the one or more physical volumes.
15. (Original) The apparatus of claim 13, wherein the one or more original physical volumes are on a first type of data storage media, and wherein the one or more physical volumes are on a second type of data storage media.
16. (Original) The apparatus of claim 15, wherein the first type of data storage media and the second type of data storage media is one of magnetic tape media, magnetic disk media, optical media, floppy diskettes, CD-ROM media, DVD-ROM media, random access memory (RAM), and memory card media.
17. (Original) The apparatus of claim 12, wherein the means for mapping the access request to a secondary virtual volume includes means for redirecting the access request from a first secondary virtual volume to a second secondary virtual volume.
18. (Original) The apparatus of claim 17, wherein the access request is redirected in response to a fault in a physical volume of the first secondary virtual volume.
19. (Original) The apparatus of claim 17, wherein the access request is redirected in response to a command to redirect the access request to the second secondary virtual volume.
20. (Original) The apparatus of claim 17, wherein the first secondary virtual volume includes physical volumes on a first media type and the second secondary virtual volume includes physical volumes on a second media type.
21. (Original) The apparatus of claim 20, wherein the means for performing the access request on one or more physical volumes associated with the secondary virtual

volume includes means for converting the access request to a format suitable for the second media type.

A1 22. (Original) The apparatus of claim 12, wherein the access request is received using a first communication protocol and wherein the means for performing the access request on one or more physical volumes associated with the secondary virtual volume includes means for converting the access request from the first communication protocol to a second communication protocol.

23. (Original) A computer program product in a computer readable medium for managing copies of virtual volume data, comprising:

first instructions for receiving an access request directed to an original virtual volume;

second instructions for mapping the access request to a secondary virtual volume; and

third instructions for performing the access request on one or more physical volumes associated with the secondary virtual volume.

24. (Original) The computer program product of claim 23, wherein the original virtual volume is associated with one or more original physical volumes, and wherein the one or more original physical volumes are different from the one or more physical volumes.

25. (Original) The computer program product of claim 23, wherein the original virtual volume is associated with one or more original physical volumes, and wherein the one or more original physical volumes are the same as the one or more physical volumes.

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26. (Original) The computer program product of claim 24, wherein the one or more original physical volumes are on a first type of data storage media, and wherein the one or more physical volumes are on a second type of data storage media.

27. (Original) The computer program product of claim 26, wherein the first type of data storage media and the second type of data storage media is one of magnetic tape media, magnetic disk media, optical media, floppy diskettes, CD-ROM media, DVD-ROM media, random access memory (RAM), and memory card media.

28. (Original) The computer program product of claim 23, wherein the second instructions for mapping the access request to a secondary virtual volume include instructions for redirecting the access request from a first secondary virtual volume to a second secondary virtual volume.

29. (Original) The computer program product of claim 28, wherein the access request is redirected in response to a fault in a physical volume of the first secondary virtual volume.

30. (Original) The computer program product of claim 28, wherein the access request is redirected in response to a command to redirect the access request to the second secondary virtual volume.

31. (Original) The computer program product of claim 28, wherein the first secondary virtual volume includes physical volumes on a first media type and the second secondary virtual volume includes physical volumes on a second media type.

32. (Original) The computer program product of claim 31, wherein the third instructions for performing the access request on one or more physical volumes associated with the secondary virtual volume include instructions for converting the access request to a format suitable for the second media type.

A1 33. (Original) The computer program product of claim 23, wherein the access request is received using a first communication protocol and wherein the third instructions for performing the access request on one or more physical volumes associated with the secondary virtual volume include instructions for converting the access request from the first communication protocol to a second communication protocol.